

04-Sol, Son  
Various Routes and locations  
Program Code: 201.235  
EA 3G720K  
September 2011

## Request Programming in 2012 SHOPP

PROJECT LOCATION: In Solano and Sonoma Counties on Various Routes at Various Locations


APPROVAL RECOMMENDED:

 9-15-11  
\_\_\_\_\_  
JEANNE GORHAM, DISTRICT PROGRAM MANAGER

APPROVAL RECOMMENDED:

  
\_\_\_\_\_  
LAWRENCE A. JONES, PROJECT MANAGER

APPROVED:

 9-15-11  
\_\_\_\_\_  
BIJAN SARTIPI, DISTRICT DIRECTOR                      DATE

This Project Initiation Document has been prepared under the direction of the following licensed landscape architect. The licensed landscape architect attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based.

  
\_\_\_\_\_  
LICENSED LANDSCAPE ARCHITECT

9/15/2011  
\_\_\_\_\_  
DATE



## **1. Initiating Office/Initiator:**

The District 4 Program Manager for the Roadside Safety Improvement Program has established that a roadside safety project is needed in the following counties, routes and locations that meets the qualification for the 201.235 Program. The locations include Solano County on Route 37 at PM 7.2, and Sonoma County on Route 12 between PM 15.8 and 16.5, and on Route 101 between PM 19.5 and R20.0.

This Small Capital Value Project (SCVP) project initiation document (PID) provides conceptual approval of the proposal and a recommendation to program the project into the 2012 State Highway Operation and Protection Program (SHOPP.) A project report will serve as final approval of the proposal.

## **2. Purpose and Need:**

### **Purpose:**

The purpose of the 20.XX.201.235 - ROADSIDE SAFETY IMPROVEMENTS Program is to minimize the frequency and duration of highway worker exposure to traffic by providing safe access to work areas and by providing features to reduce repetitive maintenance activities. The program originated as the result of annual Caltrans statewide stand-down meetings to improve safety for Caltrans employees as well as the travelling public. The program provides off pavement access areas that can be used by highway workers for landscape/electrical maintenance; litter pickup crews; the motoring public for emergencies; and the California Highway Patrol for traffic control. Safety improvement measures under this program also include relocating existing roadside facilities to safe work locations away from the travelled way; paving extended gore areas, narrow areas, and some slopes adjacent to bridge structures; providing vegetation control treatments under existing guardrail, in low visibility areas and along the road edge;

### **Need:**

Installation of roadside safety improvements such as gore area paving, maintenance vehicle pullouts (MVPs,) and access gates, will decrease worker exposure. Currently, the maintenance of the unpaved gore areas must be performed manually, requiring daytime lane closures exposing maintenance workers to high speed traffic on the heavily congested routes in the San Francisco Bay Area. In areas lacking adequately located MVPs or access gates, often maintenance vehicles are forced use the shoulders or other less desirable areas to park in order to be in the vicinity of the work.

The Department's Maintenance work force has declined in size over time, resulting in responsibility for more lane miles and acreage of right of way per person for fewer staff

crews. At the same time, Department policies to reduce herbicide applications Statewide mean that other measures are needed to control weeds or other out-of-place vegetation on the roadside or road edge.

### **3. Deficiency Summary:**

There are existing risks associated with worker exposure to traffic as determined by frequency and duration of exposure and the variety of maintenance crews working in an area. These risks can decrease with installation of roadside safety improvements.

### **4. Project Proposal:**

District Maintenance has identified unpaved gore and narrow area locations that need safety improvements in Sonoma County and one location in Solano county within the project post-mile limits. The project also proposes to install five maintenance vehicle pullouts in Sonoma County on Routes 12 and 101. Paving gore areas will prevent weed growth and enable mechanical sweeping, thus decreasing worker exposure while increasing public safety. Since the hydrology will be affected by the paving, the need for drainage modifications will have to be addressed.

In the course of investigation during the PA&ED phase, there may other locations identified as needing gore paving, maintenance vehicle pullouts (MVPs) or access gates.

R/W: All construction work including traffic control operations is anticipated to be performed within the State Right of Way. A Right of Way data sheet will be included in PA&ED phase.

Hazardous Waste: Hazardous material investigation and recommendations will be performed during the PA&ED and PS&E phases.

Stormwater: This project has anticipated soil disturbance, temporary water quality impacts resulting from the construction activities in this project will be addressed at PA&ED phase. A Storm Water Data Report (SWDR) will be included in PA&ED phase.

Hydraulics: The existing water flow lines will be affected by the gore paving. District Hydraulics will need to investigate and provide recommendations for drainage modifications during the PA&ED and PS&E phases.

Environmental: This project is expected to have no economic, social or environmental impacts, and a Categorical Exemption is the anticipated environmental clearance document. Environmental analysis will performed during the PA&ED phase.

## 5. Programming

PROJECT CAPITAL COST		
Fiscal Year	Right of Way Capital	Construction Capital
FY 11-12		\$1,265,000
FY12-13		\$1,315,600
FY13-145		\$1,368,200
FY14-156	\$5,000	\$1,423,000
FY15-16		\$1,480,000

Key assumptions for the cost estimate:

- 4% annual escalation
- Excavated soil is ADL contaminated

	PROJECT SUPPORT COMPONENTS								
	PA&ED 0 Phase		Design 1 Phase		Right of Way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	0.6		0.8		0.2		1.2		2.6
Project Support in dollars (\$K)	100		150		44		223		517

Key assumptions for support cost estimate.

- Support Cost is 35% of Capital Cost
- \$105/hr
- \$180,000 per PY

**6. Schedule:**

<b>HQ Milestones</b>	<b>Delivery Date (Month, Day, Year)</b>
PA & ED	8/30/2014
Regular Right of Way	8/30/2015
Project PS&E	8/30/2015
Right of Way Certification	10/31/2015
Ready to List	10/31/2015
Approve Contract	3/31/2016
Contract Acceptance	3/31/2017
End Project	7/31/2017

Key assumptions for the schedule.

160 working days

Vote 12/2015, Adv. 1/2016

No environmental schedule constraints.

**7. Attachments:**

- A. Project Location Map
- B. Project Location List
- C. Preliminary Project Cost Estimate

**PRELIMINARY COST ESTIMATE**

<u>Access Work</u>	<u>Yes/No</u>	<u>Quantity</u> <u>(unit)</u>	<u>*Cost</u>
(A) Access Gates - Personnel	_____	_____	_____
(B) Access Gates - Equipment	_____	_____	_____
(C) Light Duty Access Trails	_____	_____	_____
(a) All Weather Surface	_____	_____	_____
(b) Graded Surface	_____	_____	_____
(#) _____	_____	_____	_____
(D) Shoulder Widening/Turnouts**	_____	_____	_____
(a) Paved Surface	_____	_____	_____
(b) All Weather Surface	_____	_____	_____
(c) Graded Surface	_____	_____	_____
(#) _____	_____	_____	_____
(E) Staircases	_____	_____	_____
(F) Maintenance Vehicle Pullout	<u>Yes</u>	<u>5 (EA)</u>	<u>\$193,000</u>
(#) _____	_____	_____	_____
<b>COSTS SUBTOTAL</b>			<u>\$193,000</u>

<u>Vegetation Control Work</u>	<u>Yes/No</u>	<u>Quantity</u> <u>(unit)</u>	<u>*Cost</u>
(A) Vegetation control under Metal Beam Guard Rail	_____	_____	_____
(B) Vegetation control under Thrie Beam Barrier	_____	_____	_____
(C) Vegetation control around sign posts	_____	_____	_____
(D) Paving narrow areas	<u>Yes</u>	<u>28,174</u>	<u>\$290,200</u>
(E) Paving areas beyond the gore	_____	<u>(SF)</u>	_____
Item#190101, 250401,390102	_____	_____	_____
<b>COST SUBTOTALS</b>	_____	_____	<u>\$290,200</u>

<u>Facility Relocation Work</u>	<u>Yes/No</u>	<u>Quantity</u> <u>(unit)</u>	<u>*Cost</u>
(A) Pull boxes	_____	_____	_____
(B) Irrigation valve boxes	_____	_____	_____
(C) Backflow preventer assemblies	_____	_____	_____
(D) Electrical control boxes	_____	_____	_____
(E) Traffic control boxes	_____	_____	_____
(F) Irrigation control boxes	_____	_____	_____
Maintain Existing Irrigation Facilities	<u>Yes</u>	<u>(LS)</u>	<u>\$15,000</u>
<b>COST SUBTOTALS</b>			<u>\$15,000</u>

Additional Work		Yes/No	Quantity (unit)	*Cost
(A)	Traffic Control	<u>Yes</u>	<u>(LS)</u>	<u>\$142,000</u>
(B)	Earthwork***	<u>Yes</u>	<u>28,174</u> <u>(SF)</u>	<u>\$312,730</u>
(C)	Pavement**** (See Paving areas beyond the gore)	<u>          </u>	<u>          </u>	<u>          </u>
(D)	Clearing and Grubbing	<u>Yes</u>	<u>(LS)</u>	<u>\$ 10,360</u>
(E)	Other Landscape Related Work# (List type of work)	<u>          </u>	<u>          </u>	<u>          </u>
	Vegetation Control	<u>          </u>	<u>          </u>	<u>          </u>
	Erosion Control	<u>Yes</u>	<u>(LS)</u>	<u>\$ 41,440</u>
	Water Quality Control	<u>Yes</u>	<u>(LS)</u>	<u>\$ 26,640</u>
	Remove Tree	<u>Yes</u>	<u>(LS)</u>	<u>\$ 8,000</u>
(F)	Guardrail (include remove and replace)	<u>          </u>	<u>          </u>	<u>          </u>
	(a) Metal Beam	<u>          </u>	<u>          </u>	<u>          </u>
	(b) Concrete	<u>          </u>	<u>          </u>	<u>          </u>
	(c) Bridge Approach	<u>          </u>	<u>          </u>	<u>          </u>
	(#) <u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
(G)	Drainage Adjustment and Rehabilitation# (List type of work)	<u>Yes</u>	<u>(LS)</u>	<u>\$60,600</u>
(H)	Retaining Walls	<u>          </u>	<u>          </u>	<u>          </u>
(I)	State Utility Box Relocation	<u>Yes-</u>	<u>18 (EA)</u>	<u>\$10,000</u>
<b>COST SUBTOTALS</b>				<u>\$611,770</u>
<b>SUM OF SUBTOTALS</b>				<u>\$1,109,970</u>
<b>25% Contingency</b>				<u>\$370,000</u>
<b>TOTAL PROJECT COST</b>				<u>\$1,479,970</u>
<b>Say</b>				<u>\$1,480,000</u>

Note:   \*    If duplicated in other items, show cost in parenthesis.  
          \*\*    Include cost of shoulder backing material, as needed.  
          \*\*\*   Earthwork other than that required for grading turnouts or access trails.  
          \*\*\*\*   Pavement work other than that required for the Access or Vegetation Control work.

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# Add Additional lines as necessary. Do not include support costs.

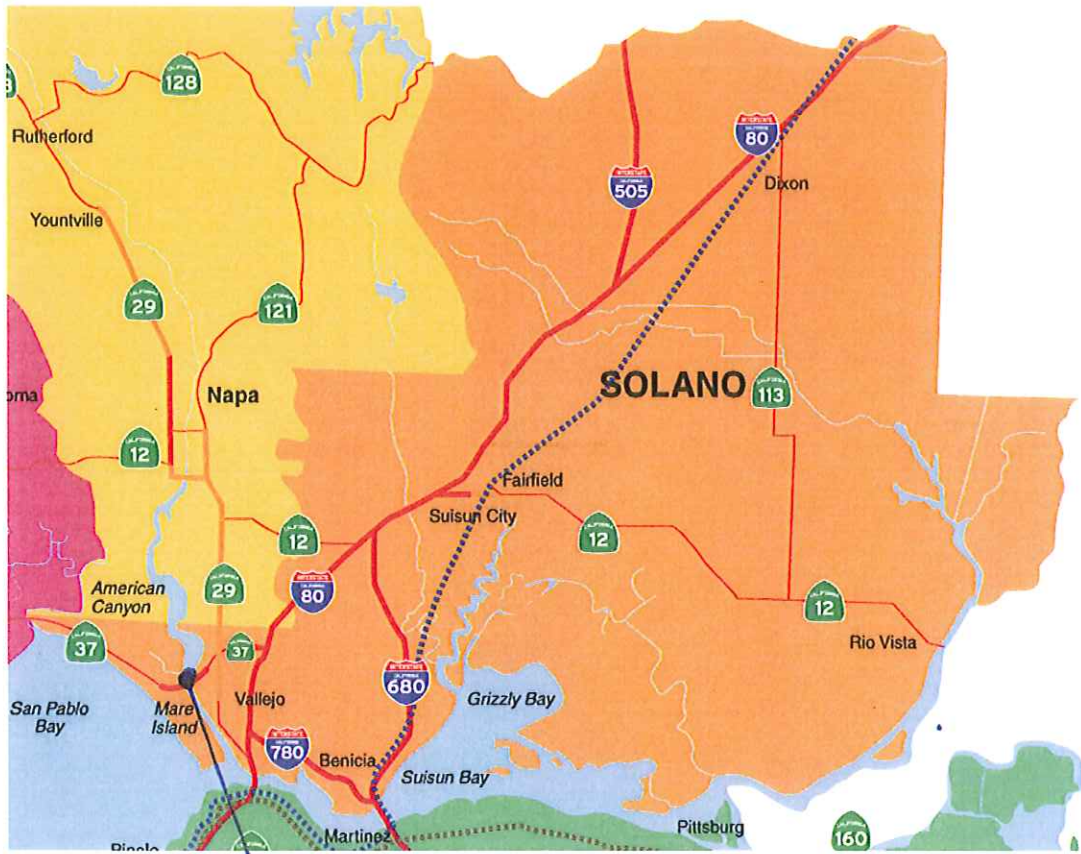


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Right of Way Items

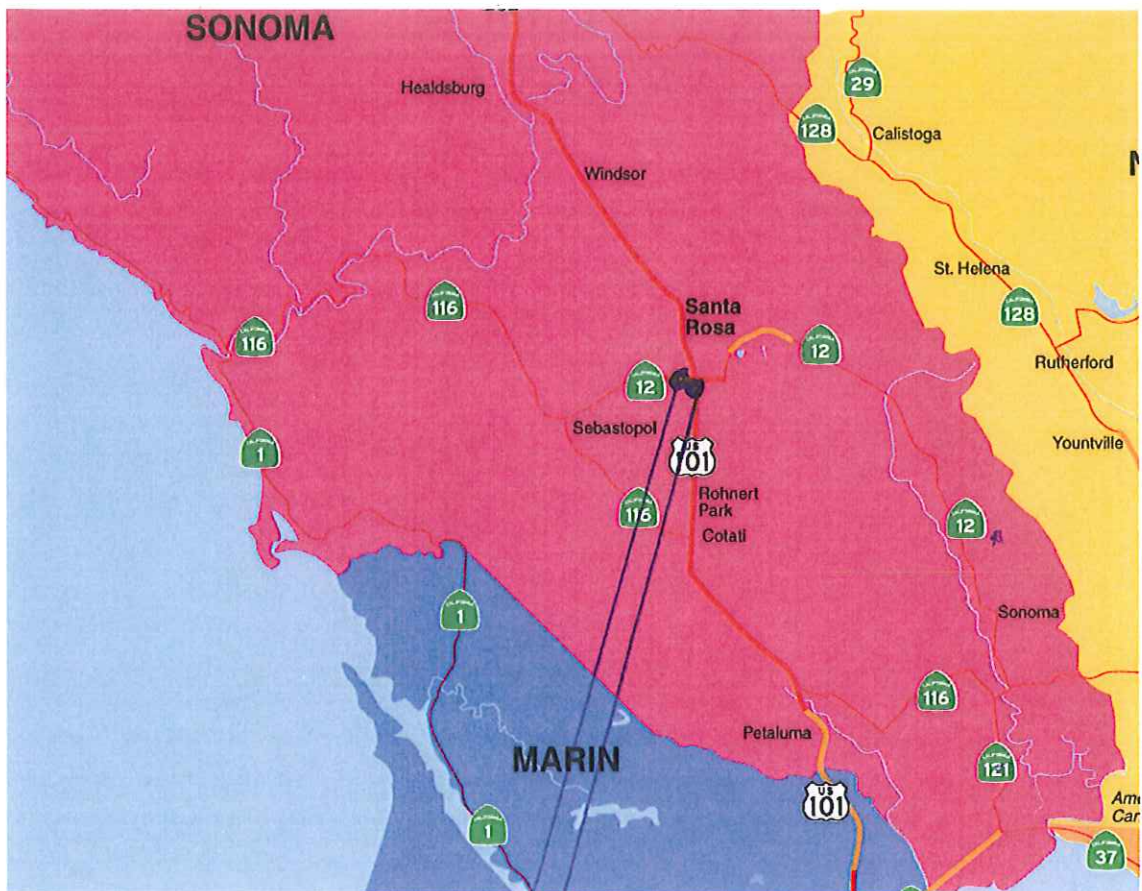
B. Utility Relocation (State Share) \$5,000 (to be used for potholing)





SOL 37 PM 7.2

REVISED SONOMA COUNTY BY PRIORITY					SCOPE OF WORK		9/15/2011
No.	County	Route	PM	Location			Area/SF
	Son	12	R15.8-16.5	Intersection of SR 12 and SR 101			
1	Son	12	R15.8-16.5	MVP			1,020
2	Son	12	R15.8-16.5	Gore Areas (5)			6,225
						TOTAL	7,245
No.	County	Route	PM	Location			Area/SF
	Son	101	19.5-20.0	Intersection of SR 12 and SR 101			
1	Son	101	19.5-20.0	MVP (4)			4,080
2	Son	101	19.5-20.0	Gore Areas (4)			5,035
						TOTAL	9,115



RTE 12 PM 15.8-16.5

RTE 101 PM 19.5-20.0